AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1 (original). Process for manufacturing ethylene oxide by the catalytic oxidation reaction of ethylene by molecular oxygen in a tube reactor comprising three successive and adjacent chambers traversed by a reactive gas current containing ethylene and molecular oxygen, an inlet chamber of the reactive gas current, then a central chamber forming a gas current resulting from the reacting and comprising the ethylene oxide, and an outlet chamber of the resulting gas current, the central chamber comprising a bundle of reaction tubes immersed in a heat exchange fluid and filled with a solid silver-based catalyst in contact with which the reactive gas current forms the ethylene oxide, each reaction tube possessing an inlet issuing into the inlet chamber and an outlet issuing into the outlet chamber, the process being characterised in that the area of the internal cross-section of the reaction tubes decreases between the inlet and the outlet of the tubes over at least a portion of the length of the tubes and remains constant over any remaining portion.

2 (original). Process according to claim 1, characterised in that the area of the internal cross-section of the reaction tubes decreases continuously.

3 (original). Process according to claim 1, characterised in that the area of the internal cross-section of the reaction tubes decreases discontinuously, preferably by stages.

4 (currently amended). Process according to ~~any one of claims 1 to 3~~claim 1, characterised in that the area of the internal cross-section (A1) at the inlet of the reaction tubes is from 1.5 to 12 times, preferably from 2 to 10 times, more particularly from 3 to 9 times greater than the area of the internal cross-section (A2) at the outlet of said tubes.

5 (currently amended). Process according to ~~any one of claims 1 to 4~~claim 1, characterised in that the decrease in the area of the internal cross-section of the reaction tubes is effected once only over the length of the tubes, either continuously over a portion of the length of the tubes, or discontinuously, preferably by a stage, such a decrease being effected at the latest before the last fifth of the length of the tubes situated towards the outlet.

6 (currently amended). Process according to ~~any one of claims 1 to 4~~claim 1, characterised in that the decrease in the area of the internal cross-section of the reaction tubes is effected two or more successive times over the length of the tubes, either continuously over two or more portions of the length of the tubes, or discontinuously, preferably by two or more successive stages, such a decrease being effected for the first time at the latest before the last fifth of the length of the tubes situated towards the outlet.

7 (currently amended). Process according to ~~any one of claims 1 to 6~~claim 1, characterised in that the reaction tubes have a length (L) of from 6 to 20 m, preferably from 8 to 15 m, an area of the internal cross-section (A1) at the inlet of the tubes from 12 to 80 cm^2, preferably from 16 to 63 cm^2, and an area of the internal cross-section (A2) at the outlet of the tubes of less than A1 and ranging from 1.2 to 16 cm^2, preferably from 1.8 to 12 cm^2.

8 (currently amended). Process according to ~~any one of claims 1 to 7~~claim 1, characterised in that the reaction tubes have a cylindrical shape and exhibit a circular internal cross-section whose internal diameter (Di) decreases between the inlet and the outlet of the tubes over at least a portion of the length of the tubes and remains constant over any remaining portion.

9 (original). Process according to claim 8, characterised in that the internal diameter (D1i) at the inlet of the reaction tubes is from 1.2 to 3.5 times, preferably from 1.4 to 3.1 times, more particularly from 1.7 to 3 times higher than the internal diameter (D2i) at the outlet of said tubes.

10 (original). Process according to claim 8, characterised in that the reaction tubes have a length (L) of from 6 to 20 m, preferably from 8 to 15 m, an internal diameter (D1i) at the inlet of the tubes of from 38 to 100 mm, preferably from 45 to 90 mm, and an internal diameter (D2i) at the outlet of the tubes of less than D1i and ranging from 12 to 45 mm, preferably from 15 to 40 mm.

11 (currently amended). Process according to ~~any one of claims 1 to 10~~claim 1, characterised in that the reaction tubes have a wall whose thickness is constant from the inlet up to the outlet of the tubes.

12 (currently amended). Process according to ~~any one of claims 1 to 10~~claim 1, characterised in that the reaction tubes have a wall whose thickness varies from the inlet up to the outlet of the tubes.

13 (currently amended). Process according to ~~any one of claims 8 to 10~~claim 8, characterised in that the reaction tubes have an external diameter which is constant between the inlet and the outlet of the tubes and preferably equal to the external diameter at the inlet of said tubes.

14 (currently amended). Process according to ~~any one of claims 1 to 13~~claim 1, characterised in that the heat exchange fluid immersing the bundle of reaction tubes is chosen from among water superheated under pressure and organic heat carrying fluids, preferably mixtures of oils or hydrocarbons.

15 (original). Process according to claim 14, characterised in that the organic heat carrying fluid is used at a relative pressure of from 100 to 1500 kPa, preferably from 200 to 800 kPa, more particularly from 200 to 600 kPa.

16 (original). Process according to claim 14, characterised in that the superheated water is used at a relative pressure of from 1500 to 1800 kPa.

17 (currently amended). Process according to ~~any one of claims 1 to 16~~claim 1, characterised in that the temperature of the reactive gas current in the reaction tubes is chosen in a range of from 140 to 350°C, preferably from 180 to 300°C, more particularly from 190 to 280°C.

18 (currently amended). Process according to ~~any one of claims 1 to 17~~claim 1, characterised in that the reactive gas current is pre-heated to a temperature of from 100 to 200°C, preferably from 140 to 190°C.

19 (currently amended). Process according to ~~any one of claims 1 to 18~~claim 1, characterised in that the temperature of the gas current resulting from the reaction at the outlet of the reaction tubes remains at a maximum temperature attained by the reactive gas current in the reaction tubes or preferably decreases to a temperature equal to or less than 250°C, preferably 240°C, more particularly 230°C, in particular a temperature chosen in a range of from 180 to 250°C, preferably from 190 to 240°C, more particularly from 200 to 230°C.